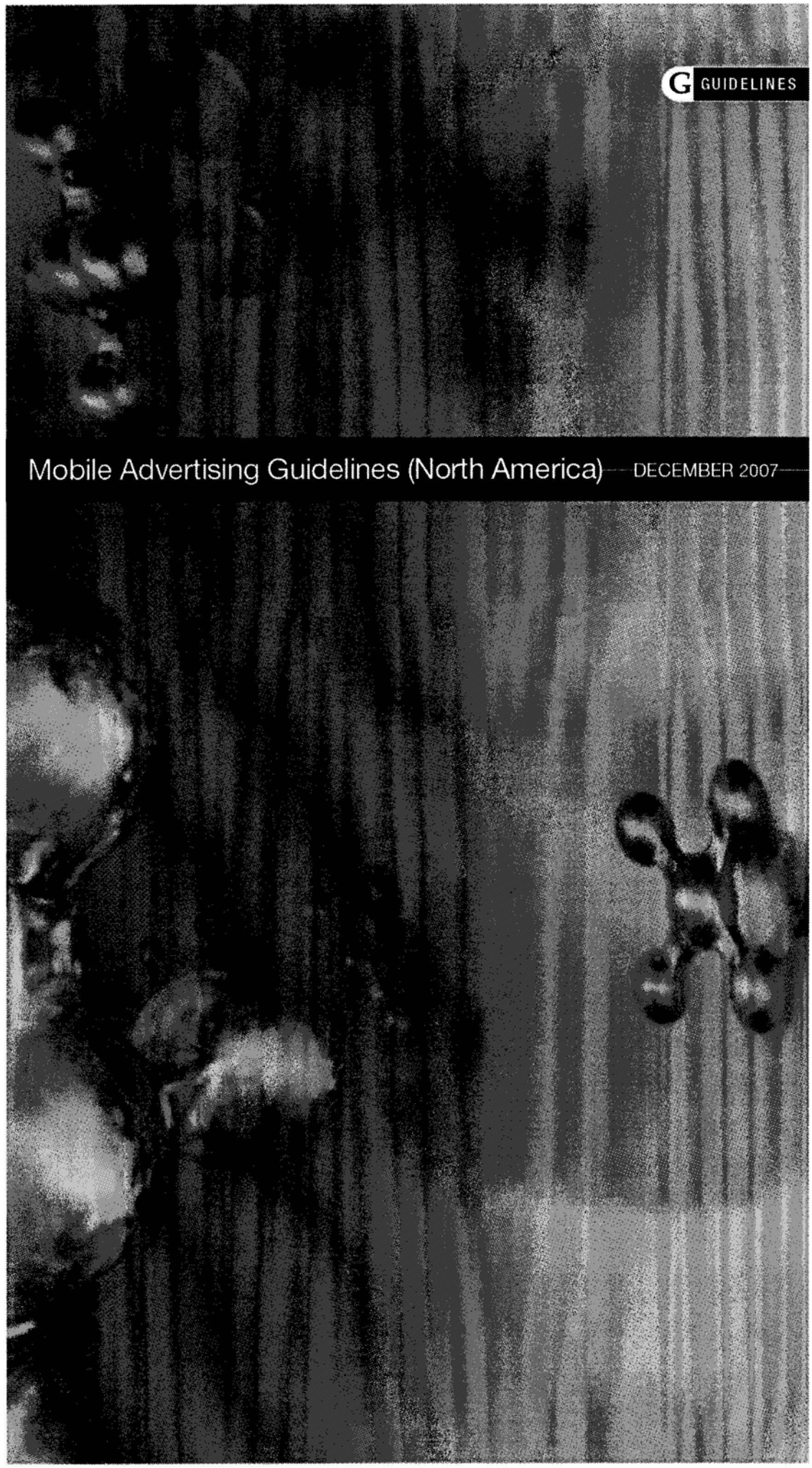
ATTACHMENT D



mma mobile marketing association

1.0 Overview

The Mobile Marketing Association (MMA) has been providing thought leadership for mobile industry formats, guidelines and best practices since 2003. The latest release of the North America Mobile Advertising Guidelines is the fifth revision and is intended to keep pace with constantly changing network speeds, handset capabilities and operator specifications and take a next step towards global guidelines. The initial MMA mobile web guidelines were released in September 2005 and have been rapidly adopted in markets all over the world.

MMA formats and guidelines are created collaboratively with all parties in the mobile marketing ecosystem, including operators, content providers, agencies, brands, and technology enablers.

The MMA's North America Mobile Advertising Guidelines provide the formats, guidelines and best practices necessary to implement mobile advertising initiatives. All parties involved in mobile advertising programs should be familiar and compliant with Mobile Advertising Guidelines and their practical implementation.

The MMA develops its guidelines utilizing a methodology which ensures the maximum optimization across device types and protection of the critical subscriber experience. This methodology process includes thorough format testing across a handset sample relevant to the current device marketplace to assess acceptable proportion as well as load time with varying volume, frequency and time of day analysis. In addition, pre and post consumer surveys are conducted to assure that initial consumer reaction to the units was positive or at least acceptable.

The MMA will launch a testing lab in Q2-08 in order to ensure all formats are tested extensively against the largest number of mobile devices globally to ensure an optimal experience for the consumer, wireless carriers, technology enablers, manufacturers and publishers.

2.0 Mobile

2.1 Mobile Web Banner Advertising Overview

What is the Mobile Web?

Today, mobile phones can be utilized for much more than just making phone calls. Wireless carriers also offer data services which enable access to various types of content and services like text messaging. Some of these data services are now becoming media channels with the ability to include advertising along with the content.

The Mobile web is utilized to access various types of content. Most handsets main menu screens have an icon labeled 'Web' which is used to access the mobile web. Categorically, the mobile web offers users access to:

- mobile web sites
- applications which can be downloaded to the phone (games, maps, city guides, video content, etc)
- text and multimedia messaging services
- and more

Browsing the mobile web is similar in concept to traditional Internet browsing, but done so on the mobile phone device. Subscribers can access mobile web sites containing news, sports, weather, e-mail and more on their mobile web-capable devices, such as those with a WAP-compatible browser. They can also access entertainment applications and more, depending on the type of devices and sites available. Many carriers provide a variety of links to branded, mobile-specific external sites to make it easier for the subscriber to navigate.

Mobile web adoption is growing in North America, and users are demographically and geographically diverse. According to M:Metrics, an independent analyst firm, approximately 10 percent of consumers use the mobile web for gaming, messaging and browsing. Demographics skew higher for male users, and overall mobile Web users are generally in the 18-44 year old age group (though predominantly within the 25-34 age range). Mobile web users have large disposable incomes, with 38 percent earning over $75,000 and 22 percent earning over $100,000. In Europe, WAP adoption numbers are even higher.

The mobile web utilizes the Wireless Application Protocol (WAP). There are two main types of WAP sites: WAP 1.0, which uses Wireless Markup Language (WML), and WAP 2.0, which is based on xHTML. WAP 2.0 is increasingly the platform of choice, because it allows for a much richer experience than WAP 1.0. Many manufacturers and carriers are moving away from WAP 1.0.

How do I buy advertising on the Mobile Web?

Buying advertising on the mobile web is similar to buying display advertising on the Internet. Graphical, interactive display ads are the predominant ad unit. And, in most cases, mobile web banner ad impressions can be purchased by CPM. Some carriers and publishers that have mobile web sites sell mobile ads directly, while others allow their inventory to be sold as part of a Mobile Ad Network.

The biggest difference between buying mobile web display ads and Internet display ads is that mobile web ads are not sold by unit size. Because the sizes of mobile handset screens vary, the way the content looks on those handsets will also vary. To create the best experience for both consumers and advertisers, the size of mobile web banners are optimized to best fit the handset on which the ad is being viewed. This improves the user experience, ad readability, creative flexibility and effectiveness. And it's why many publishers and ad

networks may ask you to provide multiple versions of your banner creative with your mobile web campaign. (More details about mobile web ad sizes are provided in a later section.)

Why is Mobile unique?

The mobile web offers a unique opportunity to marketers. The mobile phone is a highly personal device; research shows consumers rarely leave home without their mobile phone. Popularity of ringtones, graphics and other self-expression content continues to grow. And because the mobile device is so personal, users are highly engaged with content. The mobile environment is uncluttered; most publishers only allow one ad per page, providing premier placement for brands. Optimizing campaigns specifically for mobile, creating relevant messages and targeting the specific user will result in higher performance.

What types of ad campaigns can I run?

Mobile web allows marketers to get really creative about the ways a brand can interact with and engage their customer. The amount of creativity that can be applied in mobile web campaigns is virtually limitless. Advertisers can run a variety of campaign types. Beyond the branding opportunity of banner ad messaging, marketers can also employ a variety of response mechanisms which are built into the display ad mechanic:

- Drive traffic to Branded Mobile web sites
- Click-to-call
- Campaign-specific landing page information
- E-mail capture
- Ability to send a text (SMS), picture, audio or video message (MMS) to the user directly from the phone

Campaign Examples

- Automotive banner ad with dealer locator
- Fast-food restaurant ad with click for coupon
- Retail store ad with sale info
- Airline ad with e-mail registration

What results can I expect?

The success of a mobile advertising campaign can be measured in a variety of ways. The main measurements are impressions and click-through rates. Additional measurements include conversion rates, such as, click-to-call rates and other degrees of interactive measurement. These performance results will vary by the type of campaign, messaging and call to actions. However, most campaigns today result in higher click-through rates than the Internet. Brand recall studies have also been done in mobile. Refer to the reporting section of this document for more information.

2.2 Mobile Web Banner Advertising Units

Over the past few years, handsets have added features – such as high-resolution screens, WAP 2.0 browsers and MMS support – that make them capable of displaying media-rich mobile ads. To give marketers and brands an opportunity to leverage these improvements, the MMA North America Mobile Advertising committee has modified existing mobile web banner advertising specifications to include sizes that allow for the most optimal banner ad to be served to the mobile device.

This increase in mobile screen resolution allows advertisers to utilize the increased screen real estate (mainly horizontal, but sometimes vertical) and delivers higher quality banner images. As a result, advertisers can increase their campaign's effectiveness by offering larger and richer ads that are more legible on high resolution devices. (Some examples are discussed later in this section.)

The new technologies also offer the ability to determine the device types and screen resolutions as advertisements are being served, thus allowing each handset to receive the ad size that best matches its capabilities. That on-the-fly flexibility provides a better experience for wireless users. In cases where the ad-serving system can't identify the device's capabilities, the current default ad standard is applied.

Handsets Display and Corresponding Ad Images

There are hundreds of different handsets in the market today, and they differ by features such as screen size and supported technologies (e.g., MMS, WAP 2.0). Depending on your target market, multiple creative assets may need to be supplied. For color images, typically JPG, GIF and BMP formats are supported. The following table gives an overview of various handset screen sizes and the recommended image size for each type.

Table 1: Handsets Display and Corresponding Ad Images

Handset	Approx Handset Screen Size (pixels wide x tall)	Example Handsets	Ad Unit	Ad Size (pixels)
X-Large	320 x 320	Palm Treo 700p Nokia E70	X-Large	305 x 64
Large	240 x 320	Samsung MM-A900 LG VX-8500 Chocolate	Large	215 x 34
Medium	176 x 208	Motorola RAZRs LG VX-8000 Motorola ROKR E1	Medium	167 x 30
Small	128 x 160	Motorola V195	Small	112 x 20

See the technical specification section for more details on the ad units and formats.

Methodology

Key considerations while producing this recommendation were to:

- Limit the effort required to produce creative material
- Ensure that advertisements display effectively on the majority of phones
- Provide an engaging, non-intrusive consumer experience

The recommendation consists of a set of aspect ratios, actual banner dimensions, maximum file sizes and file formats.

Aspect ratios

The recommended aspect ratios are 6:1 (default) and 4:1 (extended) because:

- Having two aspect ratios provides flexibility of layout and positioning in different contexts.
- 6:1 is the default recommendation that every publisher should be able to deliver.
- 4:1 is the extended size for optional use in campaigns for those who have the possibility to offer bigger ad formats within their sites.
- Keeping the aspect ratio constant simplifies resizing of images and reduces effort.
- Both are sufficiently large to provide an effective advertising experience, yet small enough not to be intrusive.

Banner dimensions

The recommended banner widths are 120, 168, 216 and 300 pixels.

An analysis of mobile phones in the market found that the usable screen widths fall into distinct clusters. That environment has several benefits:

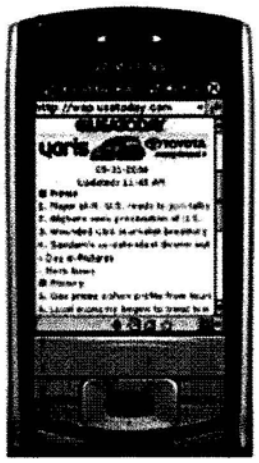
- Keeping the banner widths to four limits the effort of creative production.
- The widths chosen provide a good fit for the majority of mobile phones, limiting the amount of redundant "white space" left on the browser.
- The widths chosen provide for an exact pixel height for both ratios defined, which simplifies scaling of the creative.

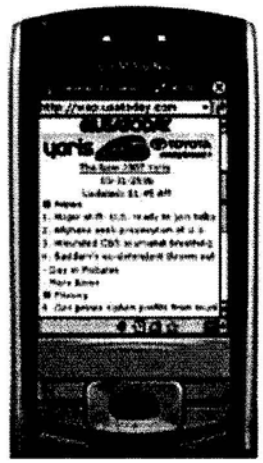
The maximum file size for the largest static Image Banner has been set at 5 KB.

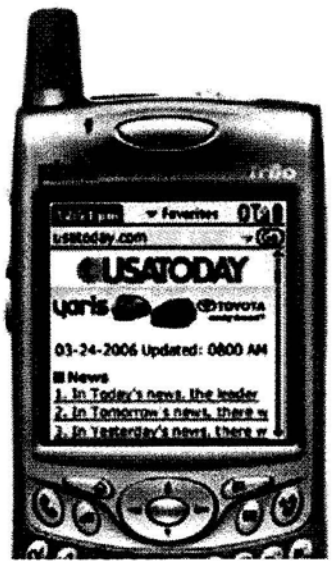
2.3 Mobile Web (WAP) Banner Advertising Examples

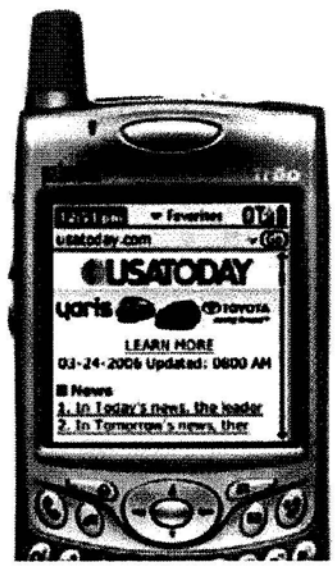
The following images illustrate how the mobile web allows for a variety of different creative implementations of your advertising campaign.

Text Link









2.4 Technical Specifications

Table 2: Technical Specifications – Mobile Web (WAP) 1.0

Ad Unit	Technical Specifications	Sample Creative
Standard Text Banner	• 2 lines of text maximum • 12-16 characters per line • 32 characters total, including spaces	
Standard Image Banner	• 80 x 15 pixels • B & W, 1-bit bitmap • < 200 bytes file size	
Standard Image/Text Combination Banner	• 80 x 12 pixels • B&W, 1-bit bitmap • Text: 12-16 characters • < 200 bytes files size	

Table 3: Static Image Banners in default 6:1 aspect ratio

Ad Size	Technical Specifications	Sample Creative (approx. size)
X-Large Image Banner	• 300 x 50 pixels • <5 KB file size • .gif, .png, .jpg	
Large Image Banner	• 216 x 36 pixels • <3 KB file size • .gif, .png, .jpg	
Medium Image Banner	• 168x 28 pixels • <2 KB file size • .gif, .png, .jpg	
Small Image Banner	• 120 x 20 pixels • <1 KB file size • .gif, .png, .jpg	
Text Tagline (optional)[1]	• Up to 24 characters for X-Large • Up to 18 characters for Large • Up to 12 characters for Medium • Up to 10 characters for small	View Program

[1]Some providers allow a text tag below the banner ad.

Table 4: Static Image Banners in extended 4:1 aspect ratio

Ad Size	Technical Specifications	Sample Creative (approx. size)
X-Large Image Banner	• 300 x 75 pixels • <5 KB file size • .gif, .png, .jpg	
Large Image Banner	• 216 x 54 pixels • <3 KB file size • .gif, .png, .jpg	
Medium Image Banner	• 168x 42 pixels • <2 KB file size • .gif, .png, .jpg	
Small Image Banner	• 120 x 30 pixels • <1 KB file size • .gif, .png, .jpg	
Text Tagline (optional)[1]	• Up to 24 characters for X-Large • Up to 18 characters for Large • Up to 12 characters for Medium • Up to 10 characters for Small	View Program

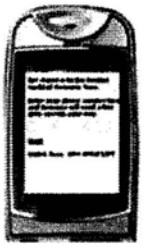
[1] Some publishers allow a text tag below the banner ad.

2.5 Overview of Mobile Web Response Mechanisms

Besides the uncluttered branding opportunity, the mobile web offers a variety of response mechanisms. When consumers click on any of these advertising units, they link to either a pre-published mobile web site or a landing page with special features:

- Externally hosted branded mobile web site (i.e., www.kodak mobile.com or wap.bk.com)
- Landing page mobile web site with text and header image
- Direct response features including:
  - -Click-to-call
  - -E-mail opt-in
  - -SMS opt-in
  - -Location finder (e.g., car dealer, store, restaurant)[2]

Table 5: Click-through Capabilities Guidelines

Landing Page Type	Technical Guidelines	Sample Creative
Standard	• **Header Image:** - 112 x 20 pixels - 16 color gif • **Text for Jump Page:** - 6 lines of text appear before user scrolls - 32 characters per line (including spaces)	
Email Opt-in	• **Header Image:** - 112 x 20 pixels - 16 color gif • **Text for Jump Page:** - 6 lines of text appear before user scrolls - 32 characters per line (including spaces) • **Email Opt-in:** - Enter e-mail address for more information - E-mail should include link for consumers to opt-out	
Click-to-Call	• **Header Image:** – 112 x 20 pixels – 16 color gif • **Text for Jump Page:** - 6 lines of text appear before user scrolls - 32 characters per line (including spaces) • **Click-to-Call:** - Phone number for users to call - Preferably specific number to track campaign	
Messaging Opt-in (SMS or MMS)	• **Header Image:** - 112 x 20 pixels - 16 color gif • **Text for Jump Page:** - 6 lines of text appear before user scrolls - 32 characters per line (including spaces) • **SMS Message:** – 160 character text message to be sent on a specific date/time – Should default to number entry where possible • **MMS Message:** –Can contain images (gif, jpg), video (3gp), audio (mp3, amr, wav) and text – Less than 100KB in total message size – Should default to number entry where possible. – Disclaimer on additional messaging costs should be displayed where applicable • **Return to referring page:** – After opt-in, where possible, the WAP page should redirect back to the referring publisher page	
Location Finder	• **Header Image:** - 112 x 20 pixels - 16 color gif • **Text for Jump Page:** - 6 lines of text appear before user scrolls - 32 characters per line (including spaces) • **Location Finder** - Business listings details • **Return to referring page:** - After location is found, where possible, the mobile web (WAP) page should redirect back to the referring publisher page	

[2] Can be location-based GPS services or postal code look-up, depending on the operator.

3.0 Downloadables

3.1 Downloadable Application Ad Guidelines Introduction

Definition

Mobile Downloadables are pieces of software that are resident, either in whole or in part, on the mobile device. Downloadables are most often used for interactive experiences, including playing games (Tetris, DinerDash) and using applications/lifestyle tools (Zagats, Moviegoer). Mobile Downloadables are usually downloaded over a carriers wireless network directly to the mobile device, but can be uploaded via Bluetooth or cables as well.

Mobile Dowloadables are developed using platforms like J2ME, BREW, Symbian, Windows Mobile, Palm and others. Mobile Downloadables are optimized by platform and by handset to ensure an optimal experience for each individual user.

Purpose

- Define standard ad units to be displayed within applications on mobile devices when advertising is not directly integrated into content, an "advergame" or customized advertisment per the advertiser or brand partner.
- Define basic parameters for the customer experience based on current best practices.
- Identify the unique aspects of downloadable applications, such as client-server architecture and intermittent connectivity that make downloadable applications function differently than WAP sites.
- Create tracking guidelines that keep this connectivity in mind.
- Encourage general scalability within standard formats for a lower barrier to entry into the mobile downloadable advertising market.

General Principles

- For ad formats that translate between the mobile web and downloadables, the primary goal is to remain as consistent as possible with much of the current MMA Banner Advertising Guidelines[3] draft. This consistency will drive adoption and scale through broad reach across handsets and minimize creative production expense for agencies/brands.
- Educate the mobile advertising ecosystemabout the creative guidelines that enable broadest reach across devices, through standard units described below. This will allow advertisers who until now have only purchased WAP to have a similar format, and re-use/purpose creatives.
- The intent is not to address highly integrated advertising advergaming, or custom advertising. This will always be a one-off between publishers and advertisers. The industry should encourage these experiments as long as the customer experience isn't compromised.
- Advertising must not degrade the user experience of the application. This ensures continued usage of the application, continued purchase of mobile ad space and maintains customer satisfaction for the carriers.
- Advertising that is disruptive, takes over a user experience ortakes a user out of an application must notify the user before this occurs. For example, there should be a notice such as: "You have asked to exit the application. Are you sure you want to do this?"

Current and Emerging Downloadable Marketplace

- Currently, many downloadable advertising campaigns are associated with a particular product rather than a particular ad unit size.
- Because the industry has had no downloadable standards until now, existing implementations will not be compliant with these recommendations.
- In addition, many downloadable advertising campaigns are highly integrated and contextual to the application or game. This use case is not covered in this document because each case will have unique implementations.
- Networks for downloadable advertising are emerging, as are campaigns that include multiple advertisers by product.
- With both approaches, it is possible to have to work within more granular segmentation, either by content type and genre or by device type or platform. This decision should be based on availability of inventory and goals of each campaign.

Most advertisers work with developers, ad agencies and publishers to select from full page or banner ad units as appropriate by campaign and product, not device, to go across multiple device types (platforms and sizes).

3.2 Ad Unit Overview

- Ad banner – An ad banner is a static logo or image(s), text or combination of these that can appear anywhere within the application (for example, on the products main menu page, or sub-pages). Ad banners should meet the below pre-determined size requirements. The ad banner can be selected by the mobile user to view more information regarding the sponsor/advertiser (active state/non-static state).
- Ad full-page images - An ad page is a full-screen advertisement, which may be placed as a "bumper" screen for the launch and exit of the application, or as a splash or jump-page (formerly called interstitials) within the application.

[3] Available as a free download at www.mmaglobal.com/mobileadvertising.pdf.

It may be used as the landing page from an earlier ad banner or may be a stand-alone full page. This full page may also be active or static.

- General behavior – Both ad banners and ad full-page images may be active and link either to places inside the application or to outside the application through links such as click-to-WAP, - call or -text. If the advertisement moves the user outside the application, specific consumer warnings and guidelines are necessary (see below). Ad pages provide opportunity for the user to receive additional information from the advertiser. This functionality must be consistent with a handset's capabilities (for example, interactivity such as click to call, WAP push) and will be limited by both type of handset and handset connectivity.

Selection of Ad Units

- The MMA North America Mobile Advertising Guidelines recommends that "ads should be optimized and dynamically delivered based upon the handset." For downloadables, this will mean selection of predefined sizes that are representative of optimizing for most major handsets including small, medium, large and extra large formats.
- Creative sizes – Advertising clients can customize their advertising campaign by creative. In the case where the format is consistent with banners and full pages, it is highly advisable that clients choose from pre-set sizes, described below, to build their advertising campaign. Full ad pages (also called ad landing pages) provide opportunities for the user to receive more robust or additional information from the advertiser.
- Mobile developers, in conjunction with their advertising partners, will define/create multiple creatives of each ad based on specifications below. The most appropriate creative should be selected for delivery based upon the handset screen size and color depth (as predetermined by advertiser and developer/publisher). This will typically be the largest screen size and resolution that fit and conform to the constrictions of the application as well.
- Some small phones may need to be excluded from banner ads based on the legibility of the specific logo or image built to specifications below.

3.3 Ad States

Ad banners advertisements in general have two states (or combinations):

- Non-active/non-highlighted/static means the ad is visible on screen but it is not in the select state.
- Active/highlighted/non-static means the banner is in the select state. You can access the ad and then press the OK key to choose it if this feature is available.

Ad Capabilities and Actions

Type of actions available for an ad:

- Click to additional page inside the application
- Click-through to WAP/web outside the application
- Click-to-call outside the application
- Click-to-SMS outside the application
- Click-to-anything external to the application (e.g., e-mail)
- Combination of the above

Types of capabilities available for an ad:

- Advertisements without actions supported on all devices (full page and banner units).
- Advertisements with some common active actions (i.e., click-to-call, click-through to WAP/web) are suitable only for Java phones that are MIDP2 compliant and BREW[4] 2.x and above (non smart phones only).
- Future advertising may leverage advanced features and APIs that require specific device capabilities, such as JSR-179 for location on Java phones. Companies and ad networks that offer this kind of advanced functionality and proprietary actions should adhere to the principal of targeting ads with those actions only to phones that can support them.

[4] For more information about Binary Runtime Environment for Wireless (BREW), visit www.qualcomm.com/brew

3.4 Ad Specifications

Full Screen

Display on screen: Intended for display on a screen by itself or with minimal components of the application (i.e., title bar or soft-button labels).

Ad behavior:

- Displayed in full, during which click-through actions are enabled.
  - -Impressions may be counted if they are fully resolved for any period of time or if the user clicks through.
- At any time the ad is displayed in full, user shall be able to click to continue past the ad into the content.
- For click-through ads that do not require a customer to leave the application and migrate to, for example, a WAP browser.
  - -The MMA recommends that, where possible, and in handsets that support this, after a click through, a user is put back to the same place in the application (e.g., World Series of Poker with $1M in chips).
- For click-through ads that do require a customer to leave the application, the MMA recommends:
  - -Clearly notifying users that they will be leaving the application environment to experience the advertisement.
  - -Giving users the option of canceling out of that/getting off of the ad and going right back where they were before.
  - -Clearly communicating that in most cases, a consumer will need to completely re-launch the application in the same way they started the application.
  - -The MMA also recommends that for applications and games whose flow may be greatly disrupted by a click-through, ads should displayed before the launch or exit of the application of the application, or queued until the end of the application experience, or avoided altogether.
  - -A preliminary recommendation for full screen ad display time is that the units disappear after a maximum of 5 seconds.

Graphics File Formats:

- PNG (required on Java phones), JPG and GIF.
- The file image may be dynamically changed based on device capabilities (image only, not size or color depth – i.e. new banner, same position or JPG to PNG).
- Static and animated images.

Sizes:

- Generally, full-screen ads should use as much of the screen area as possible. This MMA sub-committee plans to work in conjunction with the mobile web group to come to consensus around sizes for the full screen creatives that can cross platforms.
- This committee believes the larger team should keep the following in mind when creating these size standards:
  - -Square aspect ratios seem to allow the most flexibility for both mobile web and downloadable platforms.
  - -It is convenient for advertisers.
  - -It also leaves room for title bar and/or soft-button labels – a key issue that cannot be ignored when addressing the downloadable platforms.

Banners

Display on screen: Intended for display on a screen with content from the application.

Ad behavior:

- Displayed with application content
  - -The banner is displayed for as long as the customer is on this page of the application.
  - -Impressions may be counted once the page is displayed and the ad is loaded/displayed in full.
  - -The state of the ad (active or static) should be apparent to the customer.
  - -Underneath the banner it should say "advertisement," per the WAP standards.
- They user may be able to click on the ad and be taken either to a jump page inside the application or external to the application (see above).
- Click-through banner ads should behave in the same way clickthrough full page ads behave.

Graphics File Formats:

- PNG (required on Java phones), JPG and GIF.
- The file image may be dynamically changed based on device capabilities (image only, not size or color depth – i.e. new banner, same position or JPG to PNG).
- Static and animated images.

Sizes:

- Remain as consistent as possible with WAP horizontal banner sizes.
- However, this committee acknowledges that the majority of downloadables to date have not followed this standard, and we believe that many downloadable advertising campaigns will continue to be custom.

3.5 Reporting & Tracking

Downloadable apps operate in primarily two variations and may operate occasionally in a third variation:

- Not connected (never aware) applications pose unique challenges that must be overcome. These kinds of applications can have sponsorship-style advertising only. Impression counting cannot apply here. The creative and size standards may still apply.
- Connected applications (intermittently aware) are the dominant downloadable use case. Intermittently aware applications also pose unique challenges that must be overcome. Specifically:
  - -The application must synchronize with the ad server or other entity (receiving) in order to count the impression on a CPM basis.
  - -The application may receive and store the number of ads for rotation while the application is not network-aware.

The application must account for each ad served if it is sold as CPM based, even if not in network-aware scenario (i.e., application must synchronize with ad server or other entity sending if sold as a CPM).

- In addition, current best practices include:
  - -Support for more than one advertisement and ad rotation
  - -Frequency capping
  - -Expiration dates for ad (e.g., Super Bowl ad)
  - -Gathering and reporting of other information including device type, carrier and unique ID
  - -Deletion of previously stored or prior ads.
- Rare connected and continuously aware functions more like WAP. Metrics are the same as intermittently aware.

Specifics on Tracking Offline Behavior (mainly for connected/ intermittently-aware applications)

Downloadable applications are expected to be commonly used in circumstances where a real-time connection to an ad-server is not available. Therefore, some of the counting and monitoring functions of the ad server must be handled within the application.

- To minimize discrepancies, the general principle is to report only impressions or actions that can be confidently reported after the fact. Actual enumeration is necessary for CPM-based sales, rather than any type of statistical inference. An impression is counted only after each display of an ad meets the impression guidelines defined earlier.
- If the user is not on-network when the ad banner is selected, it is not possible to provide access to the full-screen ad page unless cached. A message is displayed to indicate there is no network connection. This impression may only be counted towards a CPM if the collected data is stored for retrieval later.
- Actions that can occur offline (i.e., e-mail or SMS opt-in forms) may be counted only after the mobile device connects again and the offline event is included with similar events for the campaign that happen while online.
- Other impression guidelines (i.e., minimal display time) are also unchanged from the online case.

4.0 Multimedia Messaging Services (MMS)

4.1 Introduction to MMS

Multimedia message services (MMS) is the rich media equivalent to short message service (SMS) text messages. An MMS message can include images, video and sound. These "assets" can be arranged in different orders for maximum impact.

MMS messages offer an ideal amount of ad inventory because MMS messages can be considered as rich media MMS ads reside on the subscriber's handset and can engage the user using sound and video.

Certain media publishers are beginning to use MMS to distribute mobile content. For example, CBS News has a MMS news alert program for Verizon Wireless subscribers. Fox25 distributes American Idol pictures and content via MMS to Cingular subscribers. These messages provide inventory into which advertisements can be inserted.

Additionally, various advertisers, notably the mobile operators, have successfully used MMS to promote content to their own subscriber base. There exists the opportunity for advertisers, such as mobile game providers, to promote their games through MMS messages.

4.2 Overview of MMS Response capabilities

MMS response capabilities are grouped into three different categories: message-based, call-based and WAP-landing-page-based.

Message-based responses

The subscriber can reply to the MMS message as a response mechanism. The following types of reply messages could apply.

- opt-in to receive messages
- text in to receive more sample content
- text in to enter sweepstake
- text in to participate in customer survey
- text in to vote
- text in to refer to friend
- text in to buy

Clearly, any text oriented campaign that can be conceived could become a valid campaign response.

Call-based responses

From the MMS message, the subscriber can click to make a direct phone call, such as to the advertisers. The following IVR based responses are possible:

- call in to vote
- call in to buy
- call in to get more information (about loans, new products etc)
- call in to renew plan
- call in to chat

WAP-landing-page responses

From an MMS message, a subscriber can click on a WAP link and be directed to a WAP site. These responses are identical to the banner ad responses presented in the Mobile Web section.

MMS Formats

Formats and guidelines for MMS will follow in subsequent revisions of the MMA Mobile Advertising Guidelines.

5.0 General Content Guidelines for Mobile Advertisers

Advertisers and publishers should refer to the MMA Consumer Best Practices[5] for more information on advertising guidelines. Wireless carriers and publishers may have additional or different guidelines. Please refer to them for specifics.

1. Advertisements may not be misleading or deceptive to the recipient in any way.
2. Advertisements promoting illegal products and services are not allowed.
3. The sponsor of any advertising message should be clearly identified either on the ad itself or on the resulting first- level jump page.
4. Special categories of products must comply with existing voluntary industry guidelines.
   - This includes, but is not limited to alcohol, tobacco, sweepstakes/promotions and ads targeting children.
5. Any advertisement for regulated products must comply with existing guidelines for such advertising
   - Example: Pharmaceutical ads must comply with Food & Drug Administration (FDA) guidelines.
6. Advertisements should be age appropriate.
   - Example: If ads can be targeted by age, then alcohol ads can be shown to only those mobile users who are of legal drinking age.
7. Potentially controversial advertisements should primarily be avoided, but may be reviewed on a case-by-case basis by publishers and wireless carriers.
   - Examples: Political organizations, adult or sexually explicit content, issues/causes and religion.
8. All claims made in an advertisement must be substantiated before the advertisement is scheduled to appear. Advertising that includes warranties, guarantees, or other types of assurances to the user must comply with all applicable laws, regulations or guidelines regarding such assurances, including but not limited to those set forth by the Fed eral Trade Commission (FTC).
9. Advertisements cannot promote or glorify violence, crime, obscenity, the use of weapons or provide instructions on how to "get away" with crimes or unlawful activity.
10. Language that is offensive, disturbing or likely to cause outrage, general disapproval or negative opinion within the community is not allowed.
11. Any customers information provided is limited to the current campaign only. Further interaction with the customer requires an additional opt-in.

[5] Available as a free download at www.mmaglobal.com/bestpractices.pdf.

6.0 Technical Requirements for Mobile Advertisers

1. Advertiser/merchant site infrastructure
   - Advertiser will keep up with traffic demands and is responsible for all costs, communications, hosting, hardware software and all costs of implementation for their site or associated click-through pages.
2. Optimization speed
   - Advertiser should optimize site for client software to minimize delays. For example, advertisers should accommodate the wireless network's data transfer speeds, which vary from 28.8 kbps to 3.1 Mbps, depending on technology.
3. Technical problems
   - Commercially reasonable efforts to resolve technical problems.
   - Closely monitor all promotions on the site.
4. Monitoring
   - Constant monitoring of infrastructure/content.
5. Security
   - Utilize standard encryption technologies to provide a secure environment for transactions or private member data.
6. Technical performance
   - Design site to support campaign and/or merchant activities.

7.0 Who We Are

About the Mobile Marketing Association

The Mobile Marketing Association (MMA) is the premier global non-profit trade association established to lead the growth of mobile marketing and its associated technologies. The MMA is an action-oriented organization designed to clear obstacles to market development, establish mobile media guidelines and best practices for sustainable growth, and evangelize the mobile channel for use by brands and content providers. The 500+ global member companies, representing over forty countries around the globe, include all members of the mobile media ecosystem. The Mobile Marketing Association's global headquarters are located in the United States and has recently formed the Europe Middle East & Africa (EMEA) and Asia Pacific (APAC) divisions. The Latin American (LATAM) division will be launched in Q1-08.

For more information, please visit www.mmaglobal.com

About the MMA Mobile Advertising Committee

The MMA Mobile Advertising Committee, with active committees in North America, Asia Pacific and Europe, Middle East and Africa, has been established to create a library of format and policy guidelines for advertising within content on mobile devices. By creating mobile advertising guidelines, the MMA ensures that the industry is taking a proactive approach to keep user experience, content integrity, and deployment simplicity as the driving forces behind all mobile advertising programs.

NA Mobile Advertising Committee

The North America Mobile Advertising Committee, chaired by Rhythm NewMedia, Verizon Wireless & Yahoo!, developed these guidelines in collaboration with MMA member company representatives from:

North America Mobile Advertising Committee Members		
24/7 Real Media	Handmark Inc.	Qualcomm
4INFO, Inc.	Helio LLC	R/GA
AccuWeather, Inc.	iLoop Mobile, Inc.	Reuters
Action Engine	InfoSpace	Rhythm NewMedia
AdMob Inc.	M:Metrics	Safecount
Airborne Entertainment	Mark Beccue Consulting, Inc.	Sensei, Inc.
AKQA Mobile	mBlox, Inc.	ShoZu
Alltel Wireless	Medio Systems, Inc.	SinglePoint (formerly Wireless Services Corporation)
Amobee Media Systems	Michael Marchese	Sprint-Nextel
AOL LLC.	Microsoft (MSN and Windows Live)	Telephia, Inc.
AT&T Mobility	Millennial Media, Inc.	The Hyperfactory
CellTrust Corporation	Mobile Posse	The Weather Channel Interactive
Crisp Wireless Inc.	Mobliss	Tribune Company
Dennis Digital	Motricity	U.S. Cellular Corp.
Digital Sidebar, Inc.	Mozes Inc.	Univision Online, Inc.
DoubleClick	mTLD Top Level Domain, LLC (.mobi)	Verizon Wireless
Dynetic Mobile Solutions, Inc.	News Over Wireless	Verve Wireless, Inc.
Edelman	New York Times Company	VMI.
Expecket, Inc.	Nielsen Wireless and Interactive Services	WeatherBug
Flycell	Nokia Corperation	Yahoo!
Gannett Digital	NPR (National Public Radio)	Zingy, Inc.
Greystripe Incorporated	Openwave	

References

The following links provide additional sources of information and reference:

- MMA Consumer Best Practices Guidelines (http://www.mmaglobal.com/bestpractices.pdf)
- Mobile Marketing Association website (http://www.mmaglobal.com)
- MMA Mobile Advertising Guidelines (Asia Pacific) (http://www.mmaglobal.com/apacmobileadvertising.pdf)
- MMA Mobile Advertising Guidelines (Europe, Middle East, Africa) (http://www.mmaglobal.com/emeamobileadvertising.pdf)
- MMA Code of Conduct (http://www.mmaglobal.com/codeofconduct.pdf)
- Understanding Mobile Marketing: Technology & Reach (http://mmaglobal.com/uploads/MMAMobileMarketing102.pdf)
- Off Portal - An Introduction to the Market Opportunity (http://mmaglobal.com/offportal.pdf)
- Mobile Marketing Sweepstakes & Promotions Guide (http://mmaglobal.com/mobilepromotions.pdf)
- Mobile Search Use Cases (http://mmaglobal.com/mobilesearchusecases.pdf)
- Introduction to Mobile Coupons (http://mmaglobal.com/mobilecoupons.pdf)
- Introduction to Mobile Search (http://mmaglobal.com/uploads/MMAMobileSearchIntro.pdf)
- Short Code Primer (http://mmaglobal.com/shortcodeprimer.pdf)
- W3C Mobile Web Best Practices (http://www.w3.org/TR/mobile-bp/)
- W3C mobileOK Basic 1.0 (http://www.w3.org/TR/mobileOK-basic10-tests/)

8.0 Supporting Association

The following association supports the MMA Mobile Advertising Guidelines in our mission to establish a consistent global guideline/best practice for mobile advertising.

.mobi

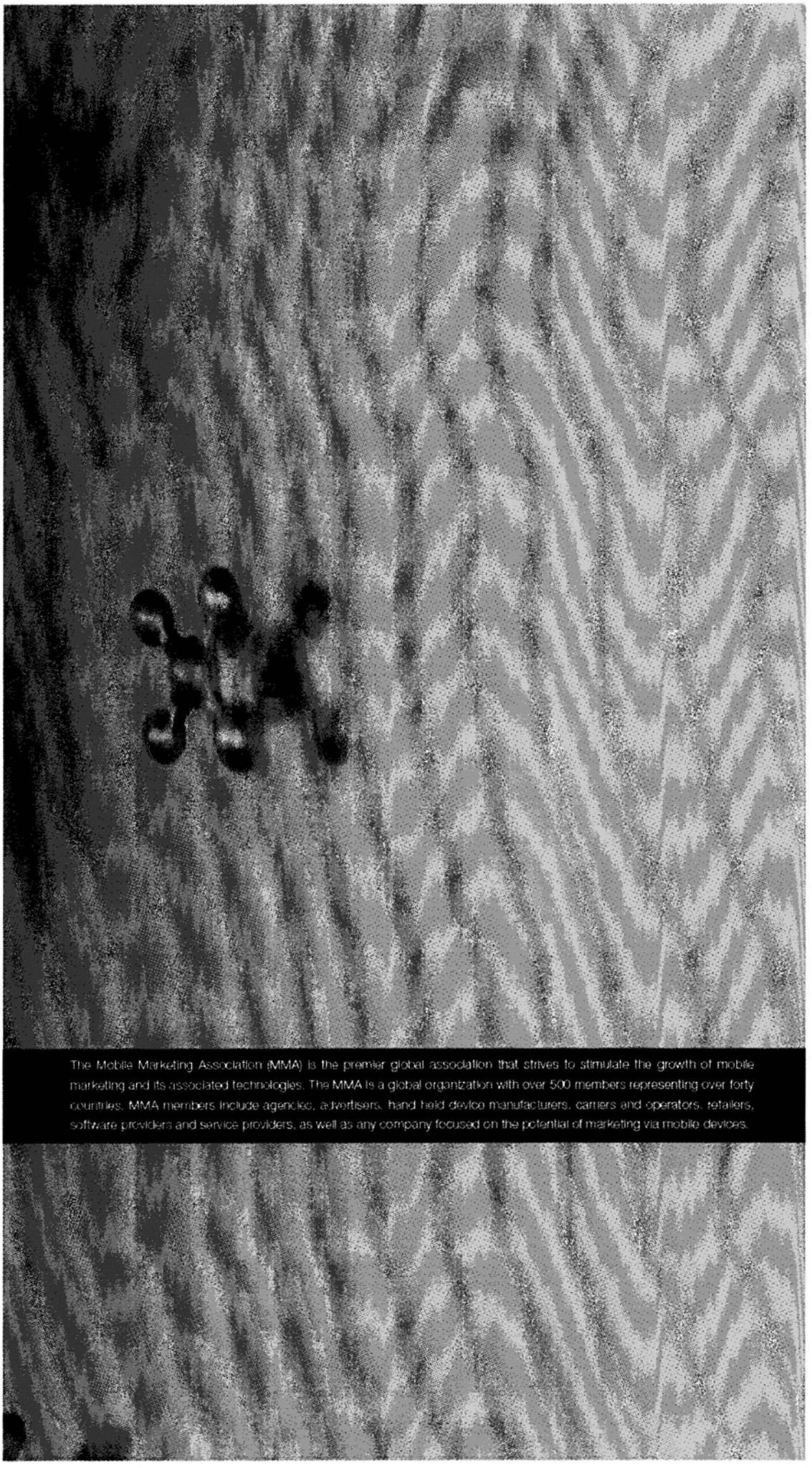
Contact Us

For more information, please contact the Mobile Marketing Association at:

Mobile Marketing Association
Email: mma@mmaglobal.com
Phone: +1.303.415.2550
Fax: +1.303.499.0952
www.mmaglobal.com

Glossary of Terms

The MMA maintains a nomenclature glossary for all terms within MMA guidelines, education documents and research. The glossary is available at http://www.mmaglobal.com/glossary.pdf



mma mobile marketing association

The Mobile Marketing Association (MMA) is the premier global association that strives to stimulate the growth of mobile marketing and its associated technologies. The MMA is a global organization with over 500 members representing over forty countries. MMA members include agencies, advertisers, hand held device manufacturers, carriers and operators, retailers, software providers and service providers, as well as any company focused on the potential of marketing via mobile devices.

ATTACHMENT E

CTIA The Wireless Association®

CTIA is the International Association for the Wireless Telecommunications Industry, Dedicated to Expanding the Wireless Frontier.

Rating of Content to Mobile Phones: The Wireless Industry Initiative

April 2006

Since early 2004, CTIA-The Wireless Association®, in partnership with the nation's leading carriers, has spearheaded an industry-wide effort to understand the issues associated with content classification and restriction. With the wide variety of content including video, games, music and ring tones available to wireless subscribers, the industry recognized its responsibility as content distributors to proactively develop the tools and controls consumers need to make informed choices when accessing carrier content. The industry's work culminated in the development of the "Wireless Content Guidelines" which were unveiled in November 2005.

A significant component of the Guidelines is the voluntary content classification standards for Carrier Content – those materials that reside within a carrier's managed content portal. Carrier Content is divided into two classifications: Generally Accessible Carrier Content and Restricted Carrier Content. Generally, Accessible Carrier Content is available to consumers of all ages. Restricted Carrier Content is accessible only to consumers age 18 years and older or to a consumer less than 18 years of age when specifically authorized by a parent or guardian.

The industry has pledged not to offer any "Restricted Carrier Content" until it has provided controls to allow parents to restrict access to this type of content, based on the content classification standard. Implementation of access controls, such as age-verification mechanisms, is at the sole discretion of the individual carriers. Additionally, the industry will embark upon an education campaign to inform and educate the industry and parents alike on the capabilities that will be used to prevent unauthorized access to age-restricted carrier-controlled content. More >

Participating wireless carriers are also working to define content rating standards to more fully inform consumers about the characteristics of Carrier Content and its suitability for particular audiences. The content rating standards will leverage existing rating systems familiar to consumers.

As with Carrier Content, the industry is developing "Internet Content Access Control" technologies that will enable wireless account holders to filter and block access to specific websites they consider inappropriate. Although carriers have no control over content generally available on the Internet, this is an important step intended to give consumers, particularly parents, the ability to limit what Internet content can be accessed through their family's wireless devices. Carriers are aggressively researching technological solutions and will implement them on a carrier-by-carrier basis.

The wireless industry has been, and will continue to be, at the forefront of meaningful efforts to inform consumers of the nature of the content available to them on mobile phones, and will put in place the tools to prevent unauthorized access to inappropriate content.

CTIA 1400 16th Street, NW, Suite 600, Washington, D.C. 20036 202.785.0081

CTIA The Wireless Association® | CTIA is the International Association for the Wireless Telecommunications Industry, Dedicated to Expanding the Wireless Frontier.

Content Guidelines

CTIA Position:

Recognizing their responsibility as content distributors, participating wireless carriers in conjunction with CTIA-The Wireless Association®, have voluntarily adopted the Wireless Carrier Content Classification and Internet Access Control Guidelines.

The Guidelines highlight the carriers' effort to provide consumers with the information and tools they need to make informed choices when accessing content using a wireless handset.

The wireless industry has been, and will continue to be, at the forefront of meaningful efforts to advise consumers of the nature of the content available to them on mobile phones, and will provide consumers with the information and tools they need to prevent unauthorized access to inappropriate content.

Key Points:

Carrier Content Classification Standards Enable Consumers to make Informed Choices. A significant component of the Wireless Carrier Content Guidelines is the voluntary content classification standards for carrier content—those materials that are offered specifically on the carrier's managed content portal, also known as the carrier's "deck", or any third-party content whose charges are included on a carrier's bill. Carrier Content is divided into two classifications: "Generally Accessible Carrier Content" and "Restricted Carrier Content." Generally Accessible Carrier Content is available to consumers of all ages. Restricted Carrier Content is accessible only to consumers age 18 years and older or to a consumer less than 18 years of age when specifically authorized by a parent or guardian.

Providing Parental Controls on "Restricted Carrier Content" is a Priority. The wireless industry has pledged not to offer any "Restricted Carrier Content" until it has provided controls to allow parents to restrict access to this type of content, based on the content classification standard. Each carrier is responsible for its implementation of access controls, including age-verification mechanisms. Additionally, the industry will undertake an education campaign to inform and educate consumers on how they can prevent unauthorized access to age-restricted carrier-controlled content.

Content Rating Standards will give Wireless Consumers Tools to make Informed Decisions. Participating wireless carriers are also working to define content rating standards to more fully inform consumers about the characteristics of carrier content and its suitability for particular audiences. The content rating standards will leverage existing rating systems familiar to consumers, such movie, television, music, and gaming rating systems.

Internet Access Controls will Enable Consumers to Limit Access to Websites from their Wireless Device. As with carrier content, the industry is developing "Internet Access Control" technologies that will enable wireless account holders to limit access to specific websites. Currently, all major carriers provide consumers with the ability to completely block Internet access on their devices. Although carriers have no control over content generally available on the Internet, providing filters and tools is an important step intended to give consumers, particularly parents, the ability to limit the Internet content that can be accessed through their family's wireless devices. Wireless companies are aggressively researching technological solutions and are implementing them on a carrier-by-carrier basis.

CTIA 1400 16th Street, NW, Suite 600, Washington, D.C. 20036 202.785.0081

ATTACHMENT F

Federal Communications Commission
Washington, D.C. 20554

February 14, 2005
Released: February 15, 2005

Mr. Steve Largent
President
CTIA – The Wireless Association
1400 16th Street, NW, Suite 600
Washington, DC 20036

Dear Mr. Largent:

I am writing to you today to commend CTIA and its members, for addressing the important issues that arise with the delivery of content over mobile devices. Mobile content has been of increasing interest to both members of the media and the public in the past few months. As wireless technology advances, consumers are able to access an increasing amount and variety of information through their mobile connections. The development of new wireless technologies presents both benefits and risks to consumers, especially those consumers who are most vulnerable – children. As your members know, as mobile devices have become more ubiquitous, they are increasingly used for work, entertainment, and perhaps most importantly, personal safety. As a result of the development of new mobile data technologies and applications, as well as the growing use of wireless devices by children, the issue of access to adult content by minors on mobile devices has come to the forefront. I applaud the initiative you are taking to address this issue and ask that you consider the following recommendations.

With adult content available from a myriad of sources, now more than ever it is important for carriers, content providers, and parents to know what is being done by industry to prevent access to adult content by minors, as well as what they can do to protect their children. Therefore, I ask you to help educate parents about their options with regard to content access by minors. Let parents know that they can block access to pay-per-call voice services and access to the mobile Internet through their children's handsets; inform parents of the types of content that children will have access to through download services; and ensure that parents are aware of the different types of services to which their children will have access.

Second, I ask that you consider whether the availability of adult content via mobile devices warrants changes to CTIA's carrier code of conduct to promote industry self-regulation. Through responsible action on the part of wireless carriers and content providers this important social goal can be achieved without government intervention and without interference to the provision of content to adults.

Finally, I encourage you to examine the efforts that are being made by both government and industry in other countries to address the issue of access to adult content by minors. For example, the United Kingdom, Australia, and Israel have each recently confronted this subject, with differing results in each case. This issue is not confined to our borders and we should be mindful that other parts of the international telecommunications industry are facing similar circumstances.

By encouraging independent initiatives by your members and giving parents access to the tools needed to protect their children from inappropriate content you can encourage the continued growth of wireless services as an integral part of every American's daily life.

Sincerely,

John Muleta
Chief, Wireless Telecom. Bureau
Federal Communications Commission

ATTACHMENT G

Lowell C. McAdam
President & Chief Executive Officer

Verizon Wireless
One Verizon Way
VC43E030
Basking Ridge, NJ 07920

Phone 908 559-7310
Fax 908 559-7526

September 28, 2007

The Honorable John D. Dingell
Chairman
Committee on Energy and Commerce
2328 Rayburn House Office Building
Washington, DC 20515

Dear Mr. Chairman:

Your public statement last evening calling for Verizon Wireless to provide its policy regarding text message services requested by advocacy groups has come to my attention.

We have updated our policy and will provide "short code" text message services to any group that is delivering legal content to customers who affirmatively indicate they desire to receive that content.

If you have any further question, please do not hesitate to contact me.

Sincerely,

L. C. McAdam

Lowell C. McAdam

cc: Honorable Joe Barton, Ranking Member
Honorable Edward J. Markey
Honorable Fred Upton
Chairman Kevin J. Martin, FCC
Commissioner Jonathan S. Adelstein
Commissioner Michael J. Copps
Commissioner Robert M. McDowell
Commissioner Deborah Taylor Tate

ATTACHMENT H

The Evolution of Text Messaging and the Role of the Operators

Mark Lowenstein
Managing Director
Mobile Ecosystem
March 2008

Executive Summary

In their December 11, 2007 petition, Public Knowledge et al. request that the FCC consider text messaging as a Commercial Mobile Radio Service (CMRS), and as such, regulate text messaging under Title II of the Telecommunications Act. Their primary objective is to require wireless operators to open up the provision of common short codes, regardless of type of organization, content, or intended use. Common short codes – five or six digit numbers that mobile phone users utilize to send a text message in order to receive information from an organization – represent an expansion of the potential use cases for SMS. The most common applications for short code campaigns are receiving alerts, direct marketing messages, and participating in polls or contests.

I believe that opening up short codes would be dangerous for consumers, damaging to the wireless industry, and would cause a surge in complaints to the FCC and other regulatory entities.

There are four key bases upon which the FCC should reject the petitioner's request. First, there are important distinctions between text messaging and the use of common short codes. Although common short codes use the SMS *infrastructure*, their intended *use* is generally different than text messaging. SMS is used primarily for peer-to-peer communications, while common short codes are primarily used for one-to-many commercial communications between an organization and its members (those subscribers who have texted to the short code to opt-in). Additionally, a common short code provides a **direct connection** to an operator's SMS gateway, which bypasses an operator's standard spam filters for text messages. This makes it easier for a brand to advertise content to consumers or to develop mobile marketing campaigns. But, the wireless operator would want to ensure that the organization using the short code is a trusted entity and that the content is appropriate for subscribers.

Second, operators insist on some form of review of common short code campaigns in order to prevent abuse and protect consumers from receiving inappropriate content. There have been examples where organizations have not been diligent in disclosing the premium charges associated with short code campaign content. It is often difficult for the consumer to determine the actual organization that owns the short code or how to contact them. Customer complaints ultimately flow back to the wireless operator as the billing entity. And with 85% of consumers owning cell phones – and approaching 50% of individuals between the ages of 10 and 18, wireless operators believe they must take necessary steps to ensure their customers do not receive unsolicited messages, viruses, or other inappropriate content that would compromise their customers' security and privacy.

Third, the wireless industry has taken a host of proactive, self-governing steps to ensure that common short codes are used appropriately:

- CTIA and participating wireless operators have voluntarily adopted *Guidelines for Carrier Content Classification and Internet Access* — an umbrella set of rules

focused on content rating, implementation of "controls", education, and compliance with applicable laws.

- The Mobile Marketing Association has developed a Code of Conduct for Mobile Marketing, which provides an extensive series of guidelines and best practices related to campaigns using short codes
- The Mobile Marketing Association has also adopted Consumer Best Practices (CPB) Guidelines, which is a compilation of accepted practices, wireless carrier policies, and regulatory guidance that has been agreed upon by representative members of the wireless ecosystem.[1]

This extensive series of measures taken by the wireless industry and mobile content industry has enabled the common short code market to grow with comparatively few examples of reported abuse or complaints to the FCC.

Fourth, as part of their effort to have the wireless operators open up common short codes, the petitioners have asked the FCC to consider SMS as a CMRS – in effect, equivalent to voice services. I am not going to opine on the legal issues surrounding this petition. However, I believe it is important to point out that the petitioners are erroneous in their interpretation of the nature of text messaging. SMS is an asynchronous form of communication, closer to instant messaging (IM) than it is a voice service. Messages are routed through a short messaging service center ("SMSC") server, where they are "stored" until automatically forwarded or "retrieved" by the destination handset shortly thereafter. So SMS should be viewed as a "store and forward" service – just like IM and e-mail. Moreover, what is stored and forwarded is *information*, which makes text messaging an information service rather than a CMRS.

By nearly any measure, text messaging has been a highly successful business, with significant benefit to consumers. With literally billions of text messages being sent and received every month and the range of uses constantly expanding, it is impressive that there have been relatively few high-profile instances of spam or abuse, compared with what we have seen in the PC world with e-mail. Even though requiring the provision of common short codes campaigns without review would provide a substantial financial benefit to the operators, the risks – to customers, the industry, and regulatory authorities – are simply too high for that to be an appropriate response to the Petition.

[1] Mobile Marketing Association, Consumer Best Practices, December, 2007.

1. SMS Background

The first text messaging services were introduced in the United States in the mid-1990s. SMS was originally conceived as a means of quick, peer-to-peer communications between wireless subscribers. It was the wireless industry's version of instant messaging (IM), minus the "presence" aspect that exists in the PC-based IM world. The wireless operator deploys a separate infrastructure in its network to handle SMS, principally an SMS gateway. Text messages are typically limited to 160 characters apiece.

Growth of text messaging was modest in the initial years. It took some time for a critical mass of SMS-capable phones to be deployed in the market. Since there was no carrier interoperability initially, subscribers could only message other subscribers of the same operator. And some operators, notably Sprint, initially chose not to deploy traditional SMS. Additionally, PC-based IM, which was enjoying rapid adoption especially among youth subscribers, was quite highly substitutive of SMS.

SMS began to take off in the United States when carrier interoperability was introduced in 2002. This meant subscribers could text message any other wireless subscriber in the United States. We have also seen growth in the number of operator agreements for international interoperability over the past several years. As SMS volume has increased, pricing plans have evolved as well. Messages typically cost $0.10-0.15 each, and for $10-15, the subscriber can purchase a large "bucket" of messages or even an unlimited text plan.

SMS has seen tremendous success since it was introduced a decade ago, particularly since interoperability was introduced. More than 50% of wireless subscribers use text messaging regularly. SMS represents more than half of the approximately $25 billion in data revenues estimated for the U.S. operators in 2007. It is used by a broadening cross-section of the market, and, as shown below, for a greater variety of applications.

Introduction of Common Short Codes

Another catalyst to the broadening of applications for SMS was the introduction of common short codes in 2003. Common Short Codes are numbers, five or six digits that mobile phone users utilize to send SMS in order to receive information (scores, alerts, participate in contests, etc.). An organization first leases a common short code from the Common Short Code Administration and must then clear the campaign with an operator.

The value of short codes is that they are fast and easy to remember, and represent a direct connection between the consumer and the brand or organization. Common short codes also represent a form of "opt-in", to make sure users are only receiving information they want. Although short codes use the SMS infrastructure, *their intended use is generally different than text messaging*. They were created to enable one-to-many and many-to-one communications using the text messaging infrastructure – essentially a different application "suite" than peer-to-peer SMS. Because users pay for sending and receiving text messages, common short codes were developed to help improve responsiveness to

advertising and marketing promotions, and to enable customers to have some control over what they receive and who they receive it from.

Short codes have enabled the wireless industry and mobile content industry to significantly expand the way in which the SMS infrastructure is used. Typical applications include:

- **Text alerts**, such as sports scores and weather forecasts.
- **"Mobile marketing"** and other forms of one-to-many advertising where a brand can use SMS for communication with a large number of consumers. Example: Several of the political campaigns are using SMS to communicate with voters.
- **Many-to-one communication**. Similarly, campaigns can be launched where consumers can use text messaging to ask questions or share their views on an issue.
- **Polling**. Voting is one of the more popular applications, as we have seen with American Idol and other TV shows. SMS is used increasingly for surveys, or for taking questions from an audience.
- **Distribution of applications**. Short codes have also been used as an infrastructure for off-deck content distribution. The use of this infrastructure also allows the operator to do billing for third party applications, which is desirable for the brand and easy for the consumer.

2. Common Short Codes Are Different Than Text Messaging

The use of common short codes is inherently different than text messaging. First, short codes are used for different *purposes* compared to SMS, which was originally developed for peer-to-peer communications – a sort of wireless IM, as we have described above. Wireless carriers neither *review*, nor do they *block*, SMS, with the major exception of efforts to capture and block spam before it reaches subscribers. Common short codes, on the other hand, are typically used for mobile marketing, advertising, or the distribution of premium content (often at premium prices). And since short codes employ the SMS infrastructure — an efficient, relatively inexpensive, and nearly ubiquitous means of one-to-many and many-to-one communication — wireless operators must play an active role in ensuring customers do not receive unsolicited messages, viruses, and other inappropriate content that would compromise their customers' security and privacy.

Second, common short code campaigns use the SMS infrastructure in a different way. A short code is a **direct connection** to an operator's SMS gateway, which bypasses an operator's standard spam filters. This makes it easier for a brand to advertise content to consumers. Hence, the wireless operator would want to ensure that the organization using the short code is a trusted entity and that the content is appropriate for subscribers.

Third, common short code campaigns often involve some form of premium charge – either for the application being delivered or for higher texting prices related to a campaign. With very few subscribers on an unlimited texting plan, and with heavy texters skewed toward younger subscribers (including minors), it is important that operators have the ability to review cases where premium charges are involved or extra

texting traffic might be generated. They need to be comfortable that price structures are effectively communicated to consumers, and must be equipped to handle these charges in their billing and customer care systems.

3. The Risks of Opening Common Short Codes

It is also important to underscore the potential risks in opening up common short codes to common carrier-like regulation. I believe there are four reasons why opening up short codes would be dangerous for consumers, wireless operators, and the industry:

- Risk to customers' privacy and security
- Potential for spam and other forms of abuse
- The nature of SMS pricing, especially the premium pricing associated with many short code campaigns
- The billing and customer care functions shouldered by the operator

Text messaging, as with the rest of wireless data, is an evolving medium. In the NARAL case, Verizon Wireless revised a years-old policy in response to a request by the organization. But the petitioners believe Verizon Wireless did not go far enough, since Verizon Wireless retained the right to review other organizations and campaigns in the future. I believe this approach is highly appropriate. New use cases and applications are being developed for text messaging and other wireless data platforms every day. Verizon Wireless and other operators have spent twenty years and billions of dollars building a trusted relationship with their subscribers. And wireless is different than PCs and the Internet. How? Let's start with highly personal and portable nature of the cell phone. Nearly every individual now has one, including tens of millions of minors. Given the always on, highly personal, and ubiquitous nature of the device, those providing the core service have a vested interest in ensuring that text messaging is not abused. Operators look over their shoulder at the PC industry, and see the prevalence of spam, viruses, and other abuses of the medium – and are clearly fearful of the same thing happening to their subscribers. The backlash from subscribers that could result from unwanted or inappropriate content being sent with the ease, immediacy, and volume characteristic of text messaging would be huge.

Viruses are another concern. Text messaging could be used as a means to distribute a virus, since subscribers have become accustomed to receiving texts to "launch" or "download" an application. Luckily, there have been relatively few instances of viruses affecting cell phones, even though text messaging could be an attractive channel for an entity wanting to send out a virus. These problems, prevalent in the PC world, have been headed off at the pass by the wireless industry. Again, this might explain the slightly more cautious approach of the wireless industry compared to the PC "ecosystem".

Another concern in the privacy/security arena is unwanted or inappropriate content. The fear, of course, is that minors – who are among the most frequent users of text messaging – would receive inappropriate content. Even though operators offer spam prevention and other parental controls (white/black lists, content ratings, and so on), the sheer volume

and application breadth of text messaging makes it very difficult to guarantee the prevention of unwanted content. It is difficult to monitor this in peer-to-peer testing, but if one envisions the potential for mass volumes of messaging enabled by the one-to-many nature of applications enabled by short code campaigns, the extra protection measures currently in place are warranted.

The risk of wrongdoing related to pricing is higher with short code campaigns. Unlike e-mail, subscribers pay to send and receive text messages. On average, SMS costs $0.10 to $0.15 per message, with bucket plans selling in the $10-20 per month range. Many of the short code providers sell "premium" services, which can cost upwards of $0.50 per message. Such charges can add up fast. Wireless operators maintain the primary billing and customer care relationship with their subscribers. They bill for third party content aggregators, and are the default point for any manner of problem being experienced by their subscribers even if it has nothing to do with the phone or the network. There have been cases of abuse involving aggregators where the operator has had to shoulder an undue burden of the responsibility. Three years ago, Jamster, an aggregator of ring tones and other content, billed subscribers for recurring monthly fees even though subscribers thought they had made a one time purchase. These unexplained charges were being received on their monthly cellular bills. Naturally, thousands of calls were received at AT&T's call centers – at an average cost to AT&T of $10-12. The operator received as much of a black eye in this case as the brand, even though the operator was not the transgressor.

The negatives that could result from common short code campaigns – unwanted content, surprise bills – are not in the land of the theoretical. As of the time of this writing, for example, Verizon Wireless is the defendant in three class action suits related to charges for short code campaigns. In all of these cases, the subscriber is suing the operator, even though the charges technically come through a messaging aggregator.[2] Another example is the well-known case of Buongiorno, a ring-tone aggregator (advertised through short-codes) that was sued by the State of Florida for allegedly duping customers into thinking they were getting a free ring tone but ending up with costly monthly recurring charges appearing on their cellular phone bills.[3] In fact, there are frequent references in these cases to unsuccessful attempts by the plaintiff to actually reach a human being at the aggregator to solve the problem. So, the operator becomes the fall guy.

There is also the very real possibility that opening the market for short codes could provide a gateway for inappropriate content, particularly adult content. Mobile adult content has become one of the fastest-growing segments of the wireless data business in certain geographies. Jupiter Research, an analyst firm that tracks mobile content, estimates that the market was nearly $2 billion in 2007, and projects mobile adult content revenues to more than double over the next three years.[4] At the present time, the vast majority of mobile adult content revenues are generated in Europe and Asia. There are

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[2] Michelle Simms vs. Cellco Partnership (dba Verizon Wireless); Susan Paluzzi vs. Cellco Partnership and Mblox; Susan Gray vs. Cellco Partnership and Mobile Messenger Americas, Inc.
[3] State of Florida vs. Buongiorno USA, Inc.
[4] Jupiter Research, as cited in Techgadgets.

more than 50 companies in Europe offering mobile pornography services. At a mobile content conference in London last October, one speaker said that 80% of Three Italy's subscribers watch adult content.

One of the largest companies in the space is Private Media, a publicly held firm that calls itself the "most highly distributed global adult brand in the business", claiming *on portal* availability on more than 800 million handsets in 35 countries and 83 operators.[5] Another prominent firm in the space, Twistbox Entertainment, has deals with over 90 mobile operators, and they have helped the operators set acceptability standards for erotica. Twistbox was recently acquired by Mandalay Media, a media and entertainment conglomerate chaired by Peter Guber.

European and Asian markets have historically been more accepting of edgier content on television and the Internet, which is why mobile adult content is currently concentrated there. The U.S. wireless industry has been a little more conservative with respect to edgy content than we have seen in other corners of the digital universe. It seems that there is a *de jure* public "trust" given that wireless serves such a high percentage of the population. This is not dissimilar to the broadcast TV networks, who exercise discretion over what is put over the spectrum.

Mainstream U.S. wireless operators have historically not allowed adult or other extreme content to be offered to subscribers. For example, none of the mainstream mobile adult content services available in Europe or Asia are currently available on- or off- portal in the United States. Guidelines around adult content are part of the numerous content classification/code of conduct/consumer best practices documents that have been published by the CTIA and the MMA and agreed to by members of the mobile content value chain. With regard to other edgier content: Music purchases are frequently the "radio edit" version; some games available for PC or consoles are not made available to wireless subscribers; and video comes edited or with warnings. Nearly all operators offer some form of parental controls to subscribers, to ensure that inappropriate content is not made available to minors.

It would certainly be more difficult to track or govern the delivery of inappropriate content if short codes were opened up. Just as adult content is a lucrative segment on the Internet, so too could it be on mobile. Opening short codes would be a way "around" the wireless industry's efforts to prevent the delivery of adult content. The ability to use the short code "loophole" provides a mechanism for the actual content provider to hide behind an aggregator. Some of the patterns and behaviors we have already seen on short codes – from the standpoint of some of the applicants, campaigns denied, and examples of errant behavior cited in other parts of this paper – lend credence to the assumption that there are organizations looking for a way to get inappropriate content to subscribers.

An analogy can be seen in the evolution of the "900 number" (also referred to as "pay per call") business in the 1980s and 1990s. Originally, 900 numbers were developed as a

[5] January 10, 2008 press release, as reported in Fierce Wireless.

mechanism for voting, survey participation, and other interactive applications and forms of audience participation via landline phones. Most calls to 900 numbers involved a premium charge (i.e., $0.50 to vote), compared to toll-free calling ("800" numbers and so on). The types of applications for 900 services, and the premium charges associated with 900 calls are similar in many ways to what has been envisioned for short codes.

Unfortunately, 900 numbers become more heavily used by, and associated with, a panoply of unsavory services, such as phone sex, escort services, and the like. Due to complaints of widespread abuse involving 900 numbers, the FCC adopted rules to govern such services in 1991.[6] Eventually, many businesses, hotels, and even cellular carriers blocked calls to 900 numbers due to both the type of content and the occasionally very high premium charges associated with 900 calls. Any call to a 900 number that showed up on a household phone bill would raise eyebrows. As a result, legitimate uses of the platform were affected and the 900 business deteriorated over the years. Additionally, the "providers" of 900 services – namely the carriers – came to be unfortunately associated with this increasingly disreputable service, and were frequently the only recourse for customer complaints about inappropriate content, unfair charges, and so on.

The short code business has grown steadily and legitimately, and enables millions of text messages a day across a great variety of application uses. Opening up short codes could result in some of the unintended consequences we have witnessed in the 900 business.

If wireless operators are taken out of the equation, how might they address consumer complaints about a content provider, in a world where they are principally responsible for the customer relationship, billing, and customer care related to wireless applications?

Even though wireless operators feel strongly about the right to review individual short code campaigns, they have shown willingness to re-think their position as to what constitutes "appropriate" content. Verizon Wireless has done exactly this in the NARAL case. There is a parallel here to what has transpired with respect to the open access issue on the wireless Internet. Wireless operators initially restricted subscribers' access to off-deck content. I believe the primarily on-deck model was highly appropriate in the initial stage of the development of the wireless Internet, as a way of providing a smooth on-ramp for subscribers, as well as a more consistent end-user experience. This approach was similar to America On-Line's "walled garden" in the early stages of the Internet as a way of easing subscribers onto this new medium. As the Web became more mainstream and broadband more prevalent, AOL evolved from a closed environment to more of a hybrid model – an advertising-supported portal open to all plus unique content for AOL subscribers. Sufficient maturity in wireless technology (networks, devices), business models, software platforms, and brands' commitment to wireless development is prompting wireless carriers to evolve their policies and embrace a more open model. The evolution in Verizon Wireless' thinking on common short code campaigns, as demonstrated in the NARAL case is similar: willingness to revise a policy in light of

[6] See FCC Fact Sheet at http://www.fcc.gov/cgb/consumerfacts/900Fact.html.

technology and market developments, but not prepared to completely abdicate a role in reviewing what is being sent to subscribers.

4. The Wireless Industry Has Proactively Taken Protective Measures

Recognizing the newness of the medium, the potential for abuse, and the unique personal nature of wireless communications, the wireless industry has taken a comprehensive series of proactive measures with respect to short codes.

The CTIA and participating wireless operators have voluntarily adopted *Guidelines for Carrier Content Classification and Internet Access*. This is an umbrella set of rules focused on content rating, implementation of "controls", education, and compliance with applicable laws. This applies to the breadth of data services offered to consumers, including campaigns enabled by short codes.

With specific regard to short codes, the Mobile Marketing Association (MMA) has adopted Consumer Best Practices (CPB) Guidelines, which is a compilation of accepted practices, wireless carrier policies, and regulatory guidance that has been agreed upon by representative members of the wireless ecosystem.[7] The 20-page CPB document provides very specific principles related to short code programs. Among the areas covered include:

- Disclosure
- Charging mechanisms
- Guidelines related to marketing to children
- Procedures for opt-in and opt-out
- How to handle chat
- Customer care processes and best practices

Additionally, the MMA has also developed a Code of Conduct for Mobile Marketing, which describes privacy principles for mobile marketers. Categories covered include: notice; choice and consent; customization and constraint; security; and enforcement and accountability.[8]

This series of proactive measures has been developed and agreed to by a broad cross-section of the industry, including key industry associations, wireless operators, infrastructure enablers, aggregators, and some of the leading enablers of short code campaigns. The guidelines, plus the multi-step methods and procedures required to launch a campaign, go a long way toward ensuring that short code applicants are both serious and cognizant of the industry's considerations of the end-user. We have seen the success of this self-policing effort in that there have been relatively few instances of consumer complaints of short code abuse.

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[7] Mobile Marketing Association, *Consumer Best Practices*, December, 2007.
[8] Mobile Marketing Association, *Code of Conduct for Mobile Marketing*, http://www.mmaglobal.com/modules/article/view.article.php/1107.

5. How Short Codes Might Evolve

The industry has put protective measures in place with respect to common short codes in part to accommodate how they might evolve in the coming years. I believe the upswing we have seen in common short code applications will continue. In part this will be driven by continued growth in text messaging volumes and the number of wireless data subscribers. Also, an increasing number of subscribers are on all-you-can-eat messaging and/or data plans, which also means there will be less sensitivity to the price of sending and receiving messages.

More importantly, common short codes are one form of enabling and accommodating the changes we are likely to see in the wireless data market. First is the broader use and acceptance of mobile marketing. Organizations are just now getting savvy and experienced with the relative ease and low cost of using mobile for one-to-many communications. We are seeing an increasing number of brands devoting resources to mobile campaigns and continued innovation of the medium. I believe subscribers will accept direct marketing, as long as it is opt-in and they are not plagued by spam as they are on the Internet.

The growth of off-deck distribution is also likely to be a catalyst for common short code applications. Though there will be many ways subscribers will be able to obtain off-portal content, common short codes will be an important marketing and visibility vehicle for some brands.

The growth in mobile social networking and communities will also be a catalyst for text messaging growth. Integration of mobile into MySpace continues to get tighter. And on Facebook, there are literally thousands of applications being developed for mobile.

It is these examples of potential expansion of use cases for common short codes that the petitioners fail to acknowledge in their petition. Common short code campaigns are used as one method of distributing premium mobile content. SMS does not provide direct access to the Internet but is a means for distributing content or links. In a similar vein to the arguments presented above, if SMS is becoming an efficient and prevalent distribution channel for off-portal content, wireless operators have a vested interest in determining whether that content is harmful to their subscribers or their businesses. The petitioners cite the Rebtel example, where certain operators have refused to allow the company to use SMS as a distribution channel to launch cheap VoIP calls which would compete with traditional cellular calls. Like the content related arguments cited above, wireless operators have the right to determine whether an application being distributed via SMS potentially harms their subscribers or their businesses. VoIP over 3G poses some risks to subscribers. For example there are concerns that voice quality would not be very good. Wireless operators are not willing to take the risk of facilitating an application that could result in a poor user experience and thereby tarnish the operator's reputation.

Rebtel might argue that its application is just the notification of a local number to place international VoIP calls, not necessarily using the operator's network. In this case, the operators are being asked to distribute an application that could cannibalize their core business. Since in my view text messaging is not a CMRS, I do not see any Title II issues involved here. The question becomes whether wireless operators can prevent the distribution, over their network, of an application that would cannibalize their core business. Such restrictions exist in other sectors of the digital economy today and are deemed perfectly acceptable. Does Disney have the right to prevent Nickelodeon from advertising its shows or providing links to its content on the Disney Web site?

6. Text Messaging Should Not Qualify as a CMRS

In their bid to open up common short codes, the petitioners argue that text messaging should be viewed by the FCC as a CMRS, and, as such, be governed by Title II of the Communications Act. I do not believe text messaging qualifies as a CMRS. SMS is a form of asynchronous communication. It does not use "switched services" in the same manner as voice communications. Yes, SMS is quicker and more instant than e-mail, but it is a "non-voice" service. It is more similar to instant messaging (IM) than it is to a voice call. SMS is an asynchronous form of communication, closer to instant messaging (IM) than it is a voice service. The main difference is that SMS does not have the same "presence" capabilities as IM, but on the other hand it is less proprietary to a particular provider's network than the principal IM services provided by AOL, Yahoo!, and Microsoft. In fact, Europe's initial lead over the U.S. in text messaging was in part attributed to the lower PC and IM penetration there, hence SMS substituted for IM for Europe's youth.

Text messages are routed through a short messaging service center ("SMSC") server, where they are "stored" until automatically forwarded or "retrieved" by the destination handset shortly thereafter. So SMS should be viewed as a "store and forward" service – just like IM and e-mail. Moreover, unlike dialing a voice call, no channel is opened to directly connect the communications of the sender and receiver; rather, the text itself is delivered to the gateway, and then the destination handset "retrieves" it. These are the hallmarks of an "information" service.

SMS is different than traditional CMRS in other ways too. Because a text message must be less than 160 characters, the recipient "sees" the whole message as soon as it is opened up. While an individual can always terminate a *phone* conversation if the call comes from an unwanted party or a conversation is headed in an uncomfortable direction, there is no such selective editing with SMS – other than the ability, obviously, to not continue the thread.

The petitioners also argue that SMS is a CMRS because it is "intertwined" with voice services (p.13). They cite services where, for example, voice recordings can be used for text messages, or where text is translated to speech. But these are not voice services. These are technologies to deliver *information* in a voice format. Text-to-speech capabilities for e-mail and even Web content have been around for years. E-mail

messages can be recorded and sent to other users in the .wav format. But no one would argue that e-mail is a CMRS.

The petitioners also believe the ubiquity and interoperability of SMS should make it qualify as a CMRS. Yes, text messaging uses the North American Numbering Plan, as an easy and convenient way for subscribers to text each other. A text messaging subscriber is using the same number for sending and receiving SMS – a new one does not have to be provisioned for SMS. Additionally, the fact that SMS is interoperable has nothing to do with regulation, NANP, or any treatment of SMS as a CMRS. Interoperability was a market-based decision that required a series of bilateral agreements among the operators, and the use of a third-party to manage and provide some of the infrastructure for interoperability.

Conclusion

The petitioners have attempted to use the NARAL case as an example of the wireless operators preventing speech over their networks. But the petitioners have not demonstrated that preventing speech is really at issue. Similar to some of the discussions about open access and net neutrality, the petitioners seek to relegate the operator to that of a mere network provider, agnostic to what type of content is going over the pipe. They need to gain some additional perspective about the unique aspects of the wireless industry. Wireless operators have spent deep physical and intellectual capital in building a trusted relationship with their subscribers. Text messaging, as one of the most prevalent, ubiquitous and efficient means of communications on the planet, is a terrific business but is also vulnerable to multiple forms of abuse and invasion of privacy. Wireless operators have taken the extra steps to prevent the spam and other forms of messaging abuse that are prevalent in the PC world don't invade wireless. So far, the record is pretty good. They have helped create a fast-growing market for commercial short code campaigns, while providing a positive customer experience. Operators have been proactive in developing, explaining, and publicizing terms and conditions regarding short codes, with the customer in mind. And they have shown flexibility in continuing to assess what type of content is appropriate to offer consumers, as they did in the NARAL case. In sum, the short code business has grown, customers are satisfied, and the right protection measures have been put in place – all in the absence of government involvement and regulation.

Mark Lowenstein Biography

Mark Lowenstein is a leading wireless industry analyst, commentator, and consultant. Most recently, Lowenstein was an executive at Verizon Wireless, where as Vice President of Strategy he led the company's efforts in pricing, market segmentation, and business planning.

Prior to his role at Verizon Wireless, Lowenstein was Managing Director of the consulting firm, Mobile Ecosystem, where he advised companies and C-level executives across the landscape of wireless communications on market, product, and industry strategy. Prior to founding Mobile Ecosystem, Lowenstein spent ten years at the Yankee Group, where he founded and led the company's wireless practices on a global basis.

Lowenstein has appeared as an expert witness on the wireless industry in several proceedings. He provided a statement as an expert on behalf of the major wireless carriers before the California Public Utilities Commission in its "Consumer Bill of Rights" proceeding. He has provided similar statements as an expert on the wireless industry before the Hawaii Public Utilities Commission and the Federal Communications Commission.

During the course of his fifteen year career as an industry consultant, Lowenstein has advised nearly every major player in the wireless communications industry. He has also had retainer relationships with top venture capital and private equity firms. Lowenstein was selected by Boston Mayor Thomas Menino to be part of an executive group to determine wireless strategy for the City of Boston. As one of the wireless industry's leading analysts, Lowenstein is a sought-after speaker, delivering keynote addresses at major industry and private corporate events.

Over the past 15 years, Lowenstein has published periodic newsletters and columns on the wireless industry, including the monthly "Lowenstein's Lens on Wireless," while running Mobile Ecosystem, and a monthly column for Wireless Week. Lowenstein has been an invited speaker numerous times across the United States at meetings and events hosted by industry trade associations, major wireless carriers, telecommunications infrastructure providers, accounting firms, wireless application developers, wireless CPE manufacturers, Wall Street equity research firms, and major U.S. banks. Lowenstein founded the Boston Wireless Braintrust, a group of twenty CEOs and wireless industry thought leaders who meet quarterly, on a proprietary basis, to discuss key industry issues, opportunities and challenges.

Lowenstein currently resides in Brookline, MA, with his wife and two children.